

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-8 (Canceled).

9. (Currently Amended) A process for detecting a state of a catalyst system installed in an exhaust gas channel of an internal combustion engine of a motor vehicle, through which catalyst system exhaust gas from the internal combustion engine flows so that the exhaust gas can be purified, the process comprising the steps of:

detecting at least one operating parameter of the catalyst system over a predetermined time period;

determining a total energy output of the internal combustion engine within the predetermined time period; and

calculating a characteristic value (k) based on a ratio of the at least one operating parameter to the total energy output, and determining the state of the catalyst system based upon the characteristic value.

10. (Previously Presented) A process according to claim 9, further including forming an average characteristic value (k_m) from a predetermined number n of characteristic values (k).

11. (Previously Presented) A process according to claim 9, further including generating a maintenance signal as a function of the characteristic value (k).

12. (Previously Presented) A process according to claim 10, further including generating a maintenance signal as a function of the average characteristic value (k_m).

13. (Previously Presented) A process according to claim 11, wherein the maintenance signal generating step includes generating of a maintenance signal when the characteristic value exceeds a predetermined threshold.

14. (Previously Presented) A process according to claim 12, wherein the maintenance signal generating step includes generating of a maintenance when the average characteristic value exceeds a predetermined threshold value.

15. (Previously Presented) A process according to claim 9, wherein the step of determining the total energy output includes finding the total energy output based on a power-equivalent variable.

16. (Previously Presented) A process according to claim 15, wherein the total energy output is found based on a cumulative air quantity.

17. (Currently Amended) A process according to claim 9, wherein the at least one operating parameter of the catalyst system ~~comprising~~ is a catalyst temperature ~~and~~ or an amount of one of the group consisting of Hcs, CO, O₂, and NO_x in the exhaust gas.

18. (Previously Presented) A process according to claim 9, wherein the predetermined time period occurs within an acceleration phase of the motor vehicle.

19. (Previously Presented) A process according to claim 9, wherein the process is conducted within at least one of a predetermined lambda region and a predetermined temperature range.